



**Fast Response Survey System (FRSS)**

**Module Objectives**

- Introduce the Fast Response Survey System (FRSS)
- Highlight past survey topics
- Describe the FRSS
  - Sample design and sampling frame
  - Data collection
  - Weights and imputation
- Explain survey estimation and limitations
- Discuss the comparability of questions
- Describe downloadable public-use data files and documentation, and explain how to interpret the record layout
- Provide answers to frequently asked questions
- Explain available publications

**Fast Response Survey System (FRSS) – Overview**

- FRSS was established in 1975
- Nationally representative
- Designed to collect issue-oriented data within a relatively short time frame
- Generally limited to three pages of questions; about 30 to 45 minutes per respondent
- Over 100 surveys conducted under the FRSS

**FRSS Surveys by Year Administered**

Click the Pause button below to scroll through the table

Dataset Topic	Surveys	Year
School Safety and Discipline	• "School Safety and Discipline: 2013-14"	2013-14
Condition of Public School Facilities	• "Condition of Public School Facilities: 2012-13"	2012-13
Dual Credit and Exam-Based Courses	• "Dual Credit and Exam-Based Courses"	2010-11
Arts Education Surveys of Secondary School Teachers	• "Surveys of Secondary School Music Specialists" • "Surveys of Secondary School Visual Arts Specialists"	2009-10
Arts Education Surveys of Elementary School Teachers	• "Surveys of Elementary School Music Specialists" • "Surveys of Elementary School Visual Arts Specialists" • "Arts Survey of Elementary School Classroom Teachers"	2009-10
Secondary School Arts Education Survey	• "Secondary School Arts Education Survey: Fall 2009"	Fall 2009
Elementary School Arts Education Survey	• "Elementary School Arts Education Survey: Fall 2009"	Fall 2009
Dropout Prevention Services and Programs Survey	• "Dropout Prevention Services and Programs Survey"	2009-10
Distance Education Courses for Public Elementary and Secondary School Students	• "Distance Education Courses for Public Elementary and Secondary School Students: 2009-10"	2009-10
Alternative Schools and Programs for Public School Students at Risk of Educational Failure	• "District Survey of Alternate Schools and Programs: 2007-08" (initial survey) • "District Survey of Alternate Schools and Programs: 2007-08" (follow-up survey)	2007-08
Teachers' Use of Educational Technology	• "Teachers' Use of Educational Technology in U.S. Public Schools, 2009"	2009
Educational Technology in Public School Districts	• "Educational Technology in Public School Districts, Fall 2008"	2008
Educational Technology in U.S. Public Schools	• "Educational Technology in U.S. Public Schools, Fall 2008"	2008
After-School Programs in Public Elementary Schools	• "After-School Programs in Public Elementary Schools"	2008
Internet Access in U.S. Public Schools	• "Internet Access in U.S. Public Schools, Fall 2005"	2005
Distance Education Courses for Public Elementary and Secondary School Students	• "Distance Education Courses for Public Elementary and Secondary School Students, 2004-05"	2004-05
Public School Principals' Perceptions of Their School Facilities	• "Public School Principals' Perceptions of Their School Facilities: Fall 2005"	2005
Foods and Physical Activity in Public Elementary Schools	• "Foods and Physical Activity in Public Elementary Schools, 2005"	2005
Internet Access in U.S. Public Schools	• "Internet Access in U.S. Public Schools, Fall 2003"	2003
Dual Credit and Exam-Based Courses in U.S. Public High Schools	• "Dual Credit and Exam-Based Courses in U.S. Public High Schools: 2002-03"	2002-03
Distance Education Courses for Public Elementary and Secondary School Students	• "Distance Education Courses for Public Elementary and Secondary School Students: 2002-03"	2002-03
Internet Access in U.S. Public Schools	• "Internet Access in U.S. Public Schools, Fall 2002"	2002
Internet Access in Public Schools	• "Internet Access in Public Schools, Fall 2000"	2000
District Survey of Alternative Schools and Programs	• "District Survey of Alternative Schools and Programs"	2001
Internet Access in Public Schools	• "Internet Access in Public Schools, Fall 1999"	1999
Condition of Public School Facilities	• "Condition of Public School Facilities, 1999"	1999
Occupational Programs and the Use of Skill Competencies at the Secondary and Postsecondary Levels	• "Occupational Programs and the Use of Skill Competencies at the Secondary and Postsecondary Levels, 1999"	1999
National Student Service-Learning and Community Service Survey	• "National Student Service-Learning and Community Service Survey"	1999
Advanced Telecommunications in U.S. Private Schools	• "Advanced Telecommunications in U.S. Private Schools, 1998-1999"	1998-99

### Sample Design

- Universe selected depending on study needs
- Data are collected from
  - State education agencies
  - National samples of other educational organizations including local education agencies
  - Private and public elementary and secondary schools, teachers, and principals
  - Public libraries and school libraries
- Sample sizes are relatively small, usually about 1,200 to 1,800

### Sampling Frame

- Sampling frame is typically the NCES [Common Core of Data \(CCD\)](#) or the [Private School Universe Survey \(PSS\)](#)
- Variables usually used for stratification or sorting within primary strata
  - Instructional level (elementary, middle, and secondary/combined schools)
  - Categories of enrollment size
  - Community type (city, suburban, town, and rural)
  - Geographic region (Northeast, Southeast, Central, and West)
  - Categories of poverty status (based on eligibility for free or reduced-price lunch)
- Teacher surveys generally use a two-stage sampling process

### Sampling Frame – Example

#### Public School Safety and Discipline: 2013-14

- Sample of elementary, middle, and high school/combined schools
- Selected from the 2011-12 Common Core of Data (CCD) Public School Universe file
- Sampling frame of
  - 50,807 regular elementary schools
  - 16,536 regular middle schools
  - 19,247 regular high school/combined schools
- Excluded from sampling frame
  - Schools with a high grade of prekindergarten, kindergarten or ungraded
  - Schools with zero, missing, or “not applicable” enrollment
  - Special education, vocational, and alternative/other schools
  - Schools outside the 50 states and the District of Columbia

### Sampling Frame – Example (Continued)

#### Public School Safety and Discipline: 2013-14 (Continued)

- Sampling frame was stratified by
  - Instructional level (elementary, middle, and high school/combined)
  - Community type (city, suburban, town, and rural)
  - Enrollment size (less than 300, 300-499, 500-999, and 1,000 or more)
- 45 strata were created and within each stratum, schools were sorted by
  - Region (Northeast, Midwest, South, and West)
  - Percent White, non-Hispanic enrollment in the school
    - Missing, 96% or more, 81-95%, 51-80%, and 50% or less
- Within each stratum, schools were selected systematically using sampling rates that depended on the size classification of the school

### **Data Collection**

- Self-administered questionnaires mailed to school
- Available on paper (submitted by mail, fax, or email) or online
- Telephone follow-up for survey nonresponse and data clarification
- Designed to account for sampling error and to minimize nonsampling error, but estimates produced from the data collected are subject to both types of error
- Questionnaires are pretested
- Questionnaires are checked
  - For consistency in interpretation of questions
  - To eliminate ambiguous items before fielding to all institutions in the sample

### **Data Collection – Example**

Public School Safety and Discipline: 2013-14

- Questionnaires and cover letters mailed to school principals
  - To be completed by the person most knowledgeable about school safety and discipline at the school
- Available on paper or online
- Telephone follow-up for survey nonresponse and data clarification
- 25 of the 1,600 public schools were ineligible because they were
  - Closed
  - Did not meet other criteria (e.g., alternative school)
- Response rates for eligible schools were
  - 86%, unweighted
  - 85%, weighted using initial base weights

### **Weights**

- Data are weighted to produce national estimates
  - Designed to adjust for the variable probabilities of selection and differential nonresponse
- Out-of-scope units deleted before weighting and analysis

### **Weights - Example**

Public School Safety and Discipline: 2013-14

- Weights were
  - Used to produce national estimates
  - Designed to reflect the variable probabilities of selection of the sampled schools and teachers
  - Adjusted for differential unit (questionnaire) nonresponse
- Nonresponse weighting adjustments made within classes defined by
  - Instructional level
  - Community type
  - Enrollment size
- In the final weighting classes, base weights of responding schools were inflated by the inverse of the weighted response rate for the class

### **Imputation**

- Imputation is limited due to low item nonresponse
- Missing data imputed for items with a response rate of less than 100%
- A “hot-deck” approach is used to obtain a “donor”
  - A “donor” is used to derive imputed values for the missing data
  - For categorical items, the imputed value is the corresponding value from the donor
  - For numerical items, an appropriate ratio is calculated for the donor
  - All missing items for a recipient are imputed from the same donor

### **Imputation – Example**

Public School Safety and Discipline: 2013-14

- Missing data were imputed
- Low item nonresponse
- Types of missing items
  - Numerical data (e.g., number of violent incidents that occurred at school)
  - Categorical data (e.g., whether the school had a particular safety practice)

### Imputation – Example (Continued)

#### Public School Safety and Discipline: 2013-14 (Continued)

- “Hot-deck” imputation method used
  - “Donor” school identified for imputation values
  - “Donor” school matched on selected characteristics
    - Instructional level
    - Enrollment size
    - Community type
    - Region
    - Percent White, non-Hispanic enrollment
  - Imputed value is the corresponding value from “donor” school

### Estimation and Limitations

- The sample size permits limited breakouts by analysis variables
  - As the number of categories within any single analysis variable increases, the sample size within categories decreases, which results in larger sampling errors
- FRSS survey data are based on complex sample designs that require the use of weights to compensate for variable probabilities of selection, differential response rates, and possible deficiencies in the sampling frame
- For information on properly analyzing NCES complex sample data, review the two common modules “[Analyzing NCES Complex Survey Data](#)” and “[Statistical Analysis of NCES Datasets Employing a Complex Sample Design](#)”

### Comparability

- Although most questions on repeated surveys ask for similar information, the wording or organization of some questions differs to the extent that direct comparisons are not possible
- Changes in question wording can be necessary to
  - Allow for more detailed information
  - Capture changes from years past
- Some questionnaire items may contain limitations or wording problems that require modifications
- New topics result in some of the older items being dropped because of space limitations

### Public-use Data Files and Documentation

- [Public-use data files and documentation](#) are available on the NCES website
- Files available include
  - ASCII Flat File
  - SAS File
  - Documentation
- Note that NCES does all it can to assure that the identity of data subjects cannot be disclosed
  - All identifiers are omitted or modified
  - All characteristics that might lead to identification are omitted or modified
  - To access raw data from some surveys, an NCES [restricted-use data license](#) is needed

### Interpreting the Record Layout

Record layout includes

- Variable name (e.g., S\_LEVEL)
- Type of variable (e.g., Char or Num)
- Column(s)
- Description

### FRSS - Frequently Asked Questions (FAQs)

- How can I access survey data?
  - Publicly available data are available on the [Downloads](#) page
  - Beyond the public-use datasets currently listed, public-use datasets from additional surveys may be forthcoming. Please contact the helpdesk at [FRSS@ed.gov](mailto:FRSS@ed.gov) for information on when new datasets are expected to be available.
  - Restricted-use data license
- Will a survey on a certain topic be administered again in future years?
  - Most FRSS surveys are only administered once
  - Some surveys, like surveys on distance education, remedial education, Internet access, and teacher preparation and qualifications, have been conducted more than once in the past, but may or may not be conducted again in the future
  - You may contact the helpdesk at [FRSS@ed.gov](mailto:FRSS@ed.gov) to find out if a survey on a particular topic is planned

**FRSS - FAQ (Continued)**

- Can I have analyses run for me?
  - No. However, if the data are available on the [Downloads](#) page, you may obtain the data you wish to analyze.
- Is it possible to have data tables computed online for FRSS surveys?
  - Not at this time
- Why do the poverty categories (e.g., less than 11 percent) vary across different FRSS publications?
  - The old poverty categories were based on empirically derived quartiles. However, a decision was made recently within NCES to adjust the categories to match those used for Title I.
- Who is represented in the survey samples?
  - All FRSS survey results are based on nationally representative samples, as opposed to samples that are drawn to be representative of individual states. Therefore, state-level estimates with FRSS data are not available.

**FRSS - FAQ (Continued)**

- Can I get a list of institutions that gave a particular answer to a survey item, or find out how a particular institution responded?
  - No. When the data were collected, institutions were assured that their survey responses would remain confidential.
- Can I download and use FRSS survey questionnaires?
  - Yes. Survey questionnaires are public domain and may be found, when applicable, in the appendix section of the publication.
- Who may request a survey?
  - Surveys may only be requested by principal operating components of the U.S. Department of Education or agencies working on issues relevant to Department policymakers

### Publications

- First Look Reports
  - Introduce new NCES data to the public
  - Are a collection of tables
  - Contain descriptive information
  - Include selected findings
- Many of the variables examined in First Look Reports are related to one another, and complex interactions and relationships are not explored
- Survey questionnaires are public domain and may be found in the appendix section of the report
- Initial reports are released less than one year from the end of data collection

### Questions

- For questions about the FRSS Programs, please first reference the FRSS [FAQ page](#)
- If your questions are not addressed by the information on the website, please send an email to [FRSS@ed.gov](mailto:FRSS@ed.gov)

### **Module Summary**

- Introduced the Fast Response Survey System (FRSS)
- Highlighted past survey topics
- Described the FRSS
  - Sample design and sampling frame
  - Data collection
  - Weights and imputation
- Explained survey estimation and limitations
- Discussed the comparability of questions
- Described downloadable public-use data files and documentation, and explained how to interpret the record layout
- Provided answers to frequently asked questions
- Described available publications

### **Module Resources**

- [Fast Response Survey System \(FRSS\)](#)
- [FRSS Survey Downloads page](#)
- [Common Core of Data \(CCD\)](#)
- [Private School Universe Survey \(PSS\)](#)
- [Public School Safety and Discipline: 2013-14](#)
- [Analyzing NCES Complex Survey Data](#)
- [Statistical Analysis of NCES Datasets Employing a Complex Sample Design](#)
- [FRSS Public-use Data Files and Documentation](#)
- [Restricted-use Data License](#)
- [FRSS Publications](#)
- [FRSS FAQ page](#)